

ABSTRACT

[0015] A method for the detection and evaluation of the light generated in a fluorescing specimen by a short pulse laser, wherein at least a first and a second fluorophore and/or a self-fluorescing specimen are separately irradiated with different wavelengths and the specimen light is recorded in a wavelength-dependent manner with at least one nondescanned detector as reference spectrum and a separation into individual spectra is carried out during the irradiation of at least two fluorophores and/or self-fluorescing specimens simultaneously from the measured spectrum and the reference spectra through regression analysis, wherein the wavelength of the short pulse laser is advantageously changed continuously in at least one wavelength region.